HQ OPS

EFA CHES

LANTDIV

EFA NE

EFA MED

URGENT RESPONSE TEAM

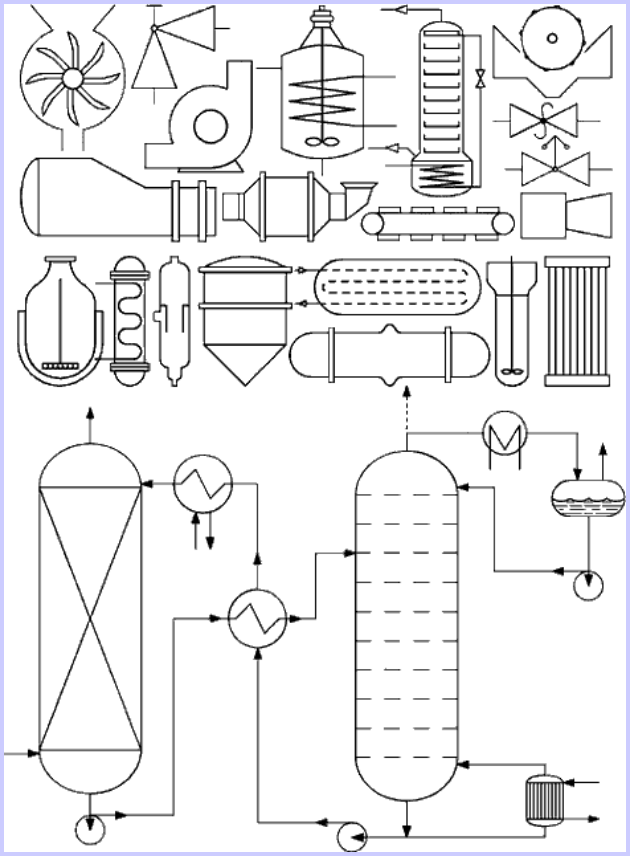
DISASTER RESPONSE TEAM GUIDANCE FOR THE PREPARATION PLANNING NECESSARY TO ENSURE TEAM MEMBER SAFETY BY RECOGNIZING AND EVALUATING POTENTIAL HAZARDS

SAFETY PLANNING TERMS:

OPERATIONAL RISK MANAGEMENT (ORM)

ACTIVITY HAZARD ANALYSIS (AHA)

PLANNING AHEAD



Bridge To The New Millenium

Bridging the Gap

Successes & Challenges Ahead

Atlantic Division, Naval Facilities Engineering Command

Safety & the ORM process

From CNO

“ORM applies across the entire spectrum of naval activities, from joint operations and fleet exercises to our daily routine. We must encourage top-down interest in the ORM process, from the flag level all the way to the deckplates.”

-- August 1998

Cost of Mishaps

"Manage your risks before they manage you."

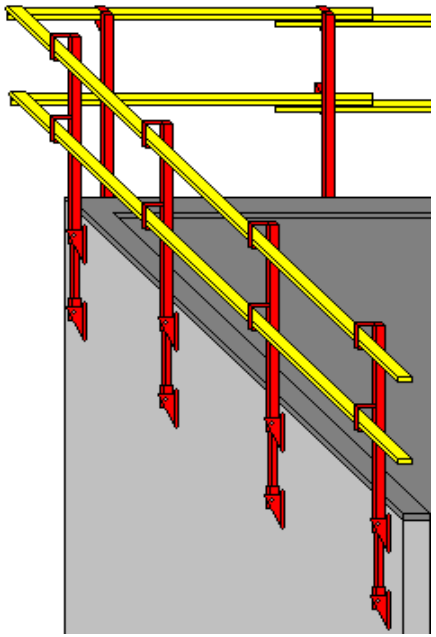
Goals of ORM using Activity Hazard Analysis (AHA)

- Accomplish mission (project) - on time
- Reduce losses
- Increase operational effectiveness

Operational Risk Management/Activity Hazard Analysis Process

1. Identify Hazards
2. Assess Hazards
3. Make Risk Decisions
4. Implement Controls
5. Supervise

Same five step process for hazard recognition and control are in both the ORM and AHA processes



ORM and Activity Hazard Analysis are parallel processes for assuring a safe work place by forcing an organized planning process of the work, ahead of time, for each mission, before that mission starts.

AHA

AHA requires us to identify the work phase, the hazards, the controls to eliminate the hazards, the special training or qualifications required, the equipment required, accountability, and communication to the Team members.

STEP I:
IDENTIFY THE HAZARDS

STEP II:

Access the Risk

STEP III:
WHAT ARE THE CONTROLS FOR THE HAZARDS?

Prioritize choices

1) Engineer out the Hazard
2) Use administrative controls
3) Use Personal Protective Gear (PPE)

STEP IV:
IMPLEMENT THE CONTROLS

STEP V: SUPERVISE/EVALUATE EFFECTIVENESS OF CONTROLS

Potential Response Situations:

Floods
Hurricanes
Tornadoes
Earthquakes
Hazardous material spills
Fires
Military OPS

EMERGENCY RESPONSE MAY BE LIMITED

FLOOD HAZARDS:

Sewerage (Hepatitis)

Drowning

Electrical

Infection

EARTHQUAKES

After Shocks

Structure

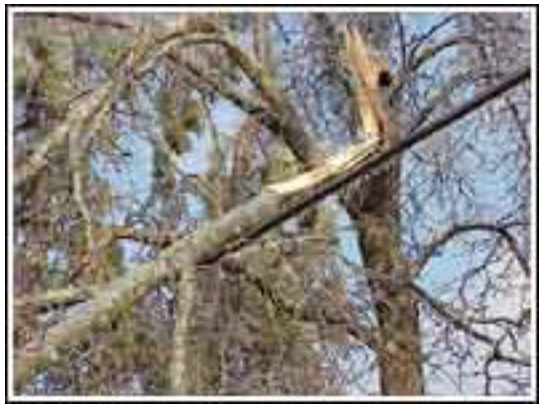
Gas leaks

Power lines

AVALANCHE

TORNADOES

HURRICANES



Matt Herron / PNI

Corbis file

David Tulis / CORBIS-BETTMANN

Library Of Congress / Corbis

Franklin, VA, September 24, 1999 -- Hazmat teams assess the situation in Franklin.

Photo by Liz Roll/ FEMA News Photo

OTHER CATOSTROPHIES

- **PPE**

Personal **P**rotective **E**quipment

Standard Personal Protective Equipment (PPE) for the Mission:

Safety Shoes
Safety glasses
Hard Hat
Long sleeve shirt
Long Pants

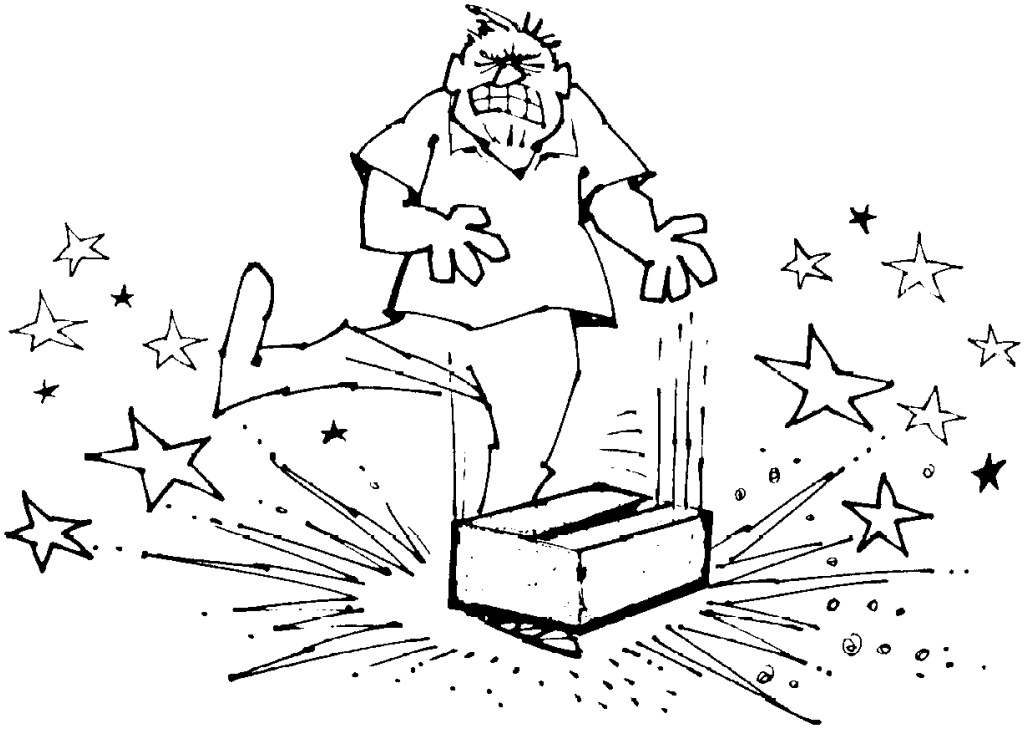
PPE - Personal Protective Equipment

- PROPER CLOTHING & DRESS IS REQUIRED AT ALL TIMES

- Coming From and Going Into Your Work Location Ensure You Have The Proper And Adequate Clothing & PPE.

Safety Foot Wear

- Steel Toe
- Rubber or Chemical

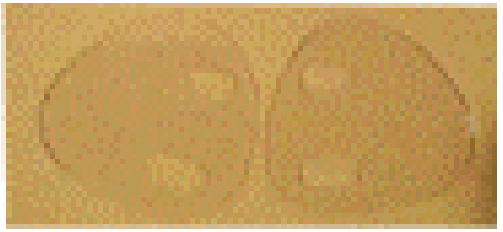


Hearing Protection

- Plugs
- Muffs
- Custom fit

Face Protection

- Eye Protection
  - Glasses
    - side shields
    - Z-87
  - Goggles
    - dusty, chemicals
- Face shield



Hand Protection

- Cloth/Leather
- Chemical

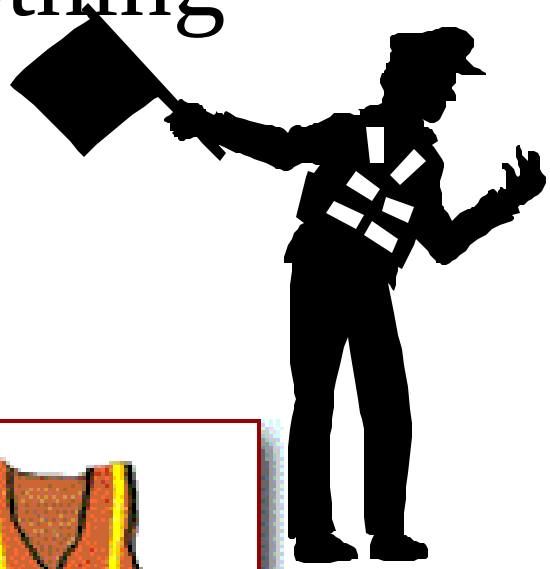
Respirators

- Escape
  - 1 use or 1 year
- Filtering
  - Fit test
  - Fit check
- Supplied Air
  - SCBA

Fall Protection

- Fall Arrest
- Fall Restraint

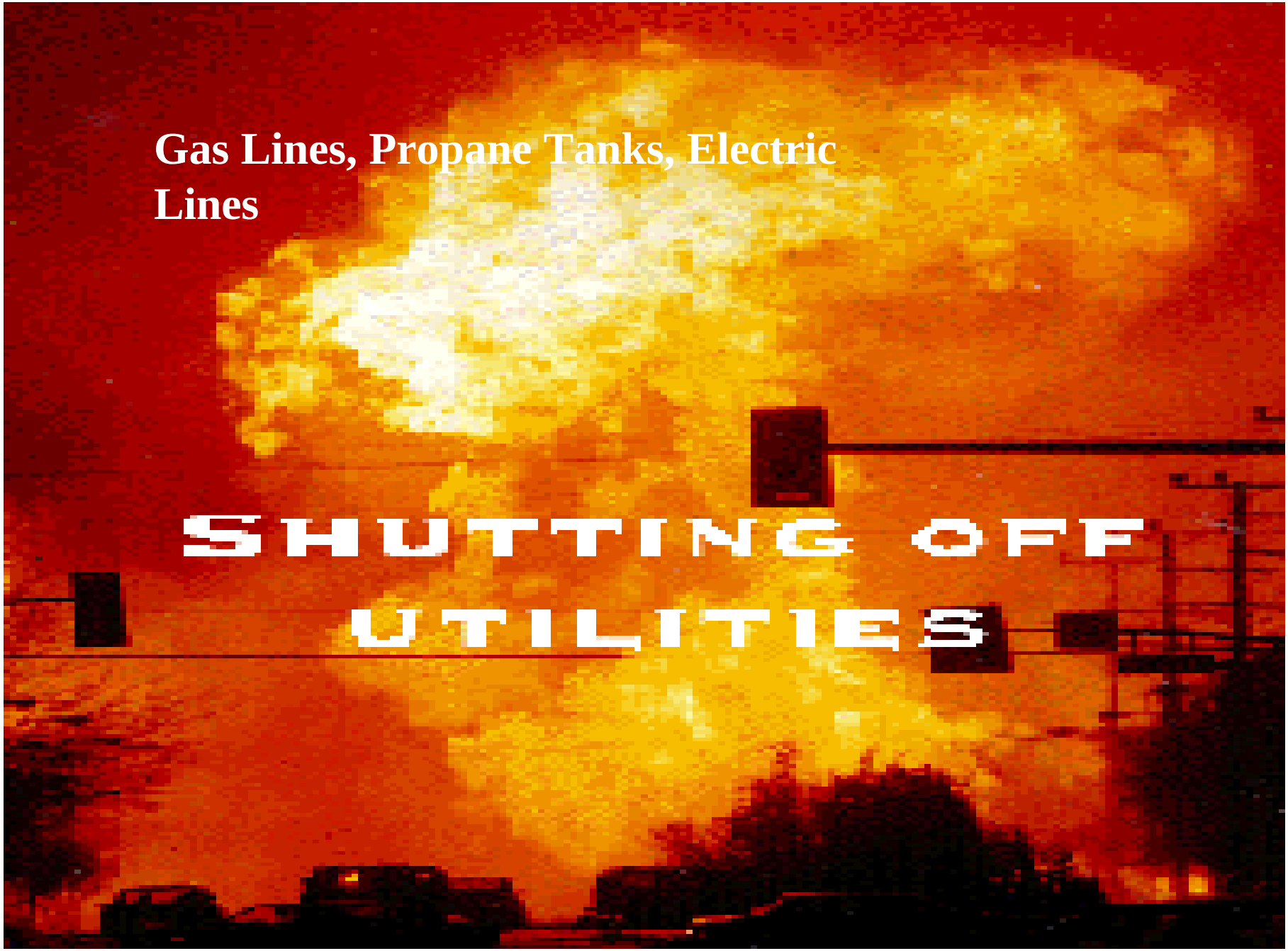
Special Clothing



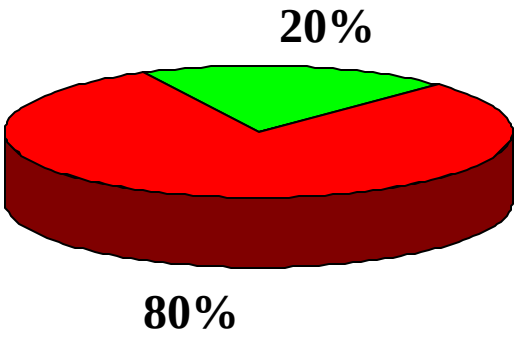
- Aprons
- Coveralls
- High Visibility-Vests

Seat Belts / Traffic

- Seat Belts MUST be used at all times while operating any company vehicle or equipment
  - No Speeding
  - Obey Stop Signs
  - Stop at Railway Crossings
  - Watch out for and YIELD to Pedestrians
  - Stay well back from behind heavy equipment and trucks
  - When operating any equipment inside buildings, drive slow…


Gas Lines, Propane Tanks, Electric Lines
SHUTTING OFF UTILITIES

Inexperience = Accidents



- Employees Who Have Less Than 12 Months Experience at a Different or New Task, Account For 80% of ALL Accidents

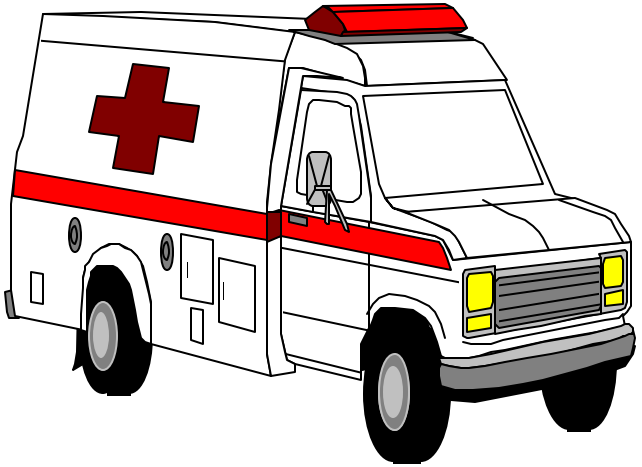
Guard Against These Traps

- Time Pressure
- Vague Guidance
- After Wake-up or Meal
- First Time Evolution
- Over-confidence
- Distractive Environment
- High Work Load/Stress
- First Day After Time Off

Facts On Falls

- Second Leading Cause Of Accidental Death (12,000 Die Annually)
- 1/2 Of Injuries On Level Surface
- 400 Ladder Deaths-40,000 Disabling Injuries
- 11’ Fall = 50%+ Chance Of Fatality
- 53% Of Victims Are Male
- Most In March Least In April

Vehicle Accidents
"On An Average Day"



- 90,000 Accidents
- 53,000 Claims Reported
- 6,300 Disabling Injuries
- 120 Deaths
- Cost To Society is $467,000,000

(Wages, Productivity, Medical, Property Damage, Employer Costs and Administration Costs)

FALL PROTECTION

FALL PROTECTION

RULES TO LIVE BY

FALL PROTECTION

Fall Protection

- **Trigger height is six feet**
- **Applies to all employers engaged in residential construction**
- **Includes suppliers of materials**
- **Workers must use safe work practices**

FALL PROTECTION

Safe Work Practices

- **Common sense concepts**
- **Allowing only trained workers to be exposed to falls**
- **Stopping work during dangerous weather conditions**
- **Ensuring no impalement hazards below workers**
- **Proper location of materials**

FALL PROTECTION

Required Types of Protection

- **Roof pitch< 4/12 requires safety monitoring**
- **Pitch 4/12 to 6/12 Slide guard at eave**
- **Pitch 6/12 to 8/12 Slide guard at eave and every eight feet up roof**
- **Pitch >8/12 Conventional Fall Protection Systems**

FALL PROTECTION

Fall injuries and fatalities involve many human and equipment issues tha must be addressed by employers to protect employees from fall hazards.

Those issues include:

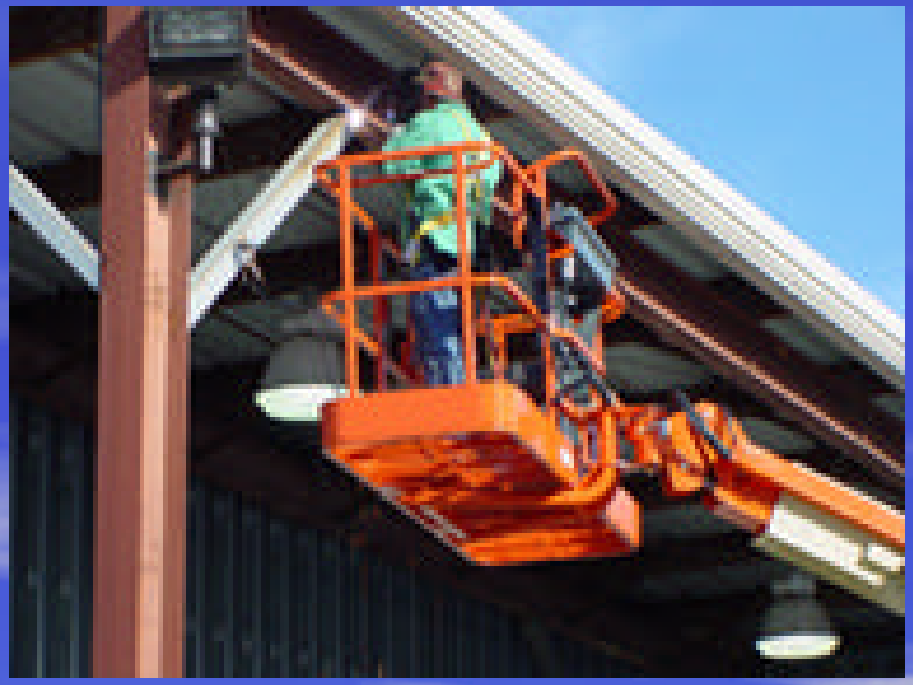
- **the need to know where protection is required;**
- **the selection of fall protection systems which are appropriate for given situations;**
- **the proper construction and installation of safety systems;**
- **the proper supervision of employees;**
- **the implementation of safe work procedures; and**
- **the proper training in the selection, use, and maintenance o fall protection systems.**

FALL PROTECTION

Protect employees from falls of 6' or greater. On most interior fall hazards, conventional fall protection methods (guardrails, safety nets, personal fall arrest systems, or covers) will provide effective protection. Traditionally, conventional fall protection is effective in protecting:

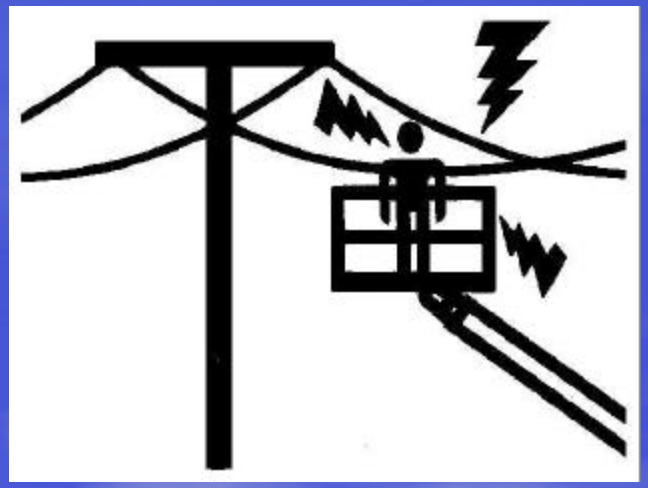
- **many walking/working surfaces;**
- **floor holes;**
- **wall openings;**
- **skylight openings;**
- **HVAC openings; and**
- **unprotected sides and edges.**

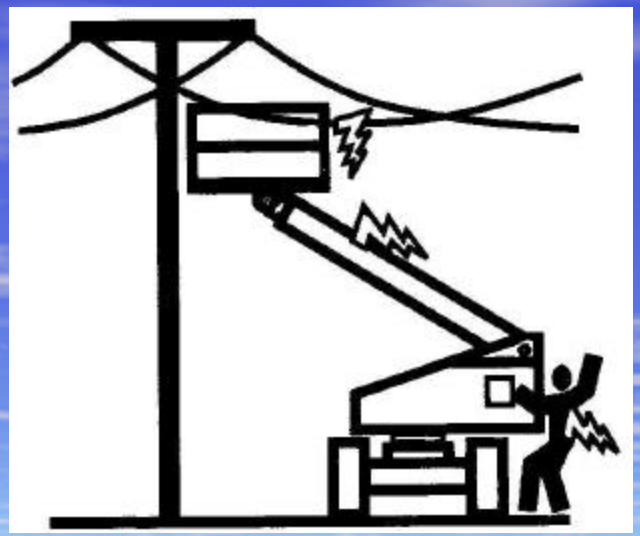
FALL PROTECTION



Full Body Harness Required At All Times

FALL PROTECTION





Power Lines

Electrocution Hazard

Maintain safe clearance from Electrical lines and apparatus. Allow for boom sway, rock or sag and electrical line swaying. The machine does not provide protection from contact with or proximity to an electrically charged conductor.

Maintain a clearance of at least 10 Feet (3 m) between any part of the machine or its load and any electrical line or apparatus carrying up to 50,000 volts. One foot additional clearance is required for every additional 30,000 volts or less.

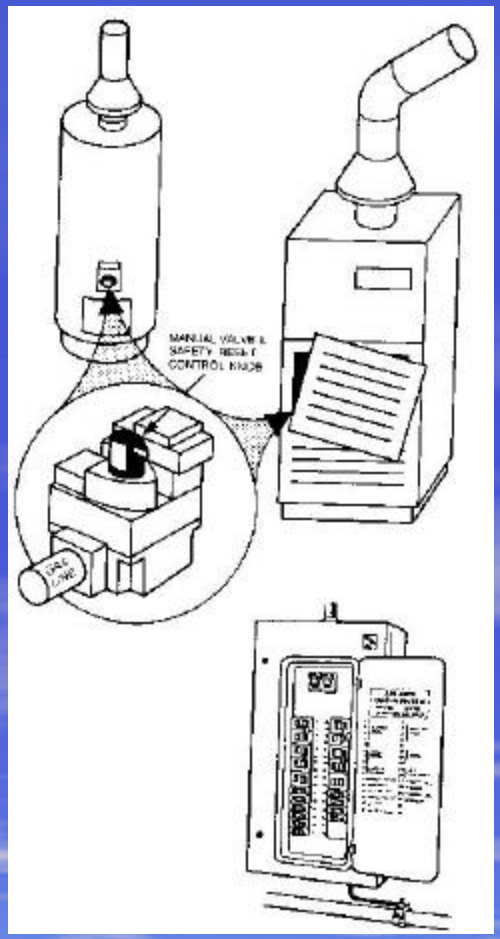
Electrical & Fire Safety

Electrical & Fire Safety

ELECTRICAL SAFETY

- Assume all wires on the ground are electrically charged. This includes cable TV feeds.
- Look for and replace frayed or cracked extension and appliance cords, loose prongs, and plugs.
- Exposed outlets and wiring could present a fire and life safety hazard.
- Appliances that emit smoke or sparks should be repaired or replaced.
- Have a licensed electrician check for damage.

Electrical & Fire Safety



CPSC Issues Warning to Hurricane Victims to Prevent CO Poisonings, Electrocutions, Explosions and Fires

Replace Flood-Damaged Gas Control Valves, Electric Circuit Breakers, GFCIs and Fuses

Electrical & Fire Safety

If You Hit a Power Line

- **If you're in the equipment, stay there. You're safe from shock unless you try to get out. Try to move the equipment away from the line. If you can't, stay where you are and wait for rescue workers.**
- **Have someone call the power company immediately to shut off the power.**
- **Warn everyone away from the load, guide wires, equipment, and anything in contact with the equipment -- all of which could be conducting a deadly amount of electricity.**
- **If you must get out of the equipment because of fire or other danger, jump free rather than stepping off. Never touch a grounded surface and equipment that's contacting a power line at the same time.**

Electrical & Fire Safety

SOME TYPES OF FIRE RELATED HAZARDS PRESENT DURING AND AFTER A HURRICANE

- Leaking gas lines, damaged or leaking gas propane containers, and leaking vehicle gas tanks may explode or ignite.
- Debris can easily ignite, especially if electrical wires are severed.
- Pools of water and even appliances can be electrically charged.
- Generators are often used during power outages. Generators that are not properly used and maintained can be very hazardous.
- Alternative heating devices used incorrectly create fire hazards. Proper use and maintenance can decrease the possibility of a fire.
- Appliances that emit smoke or sparks should be repaired or replaced

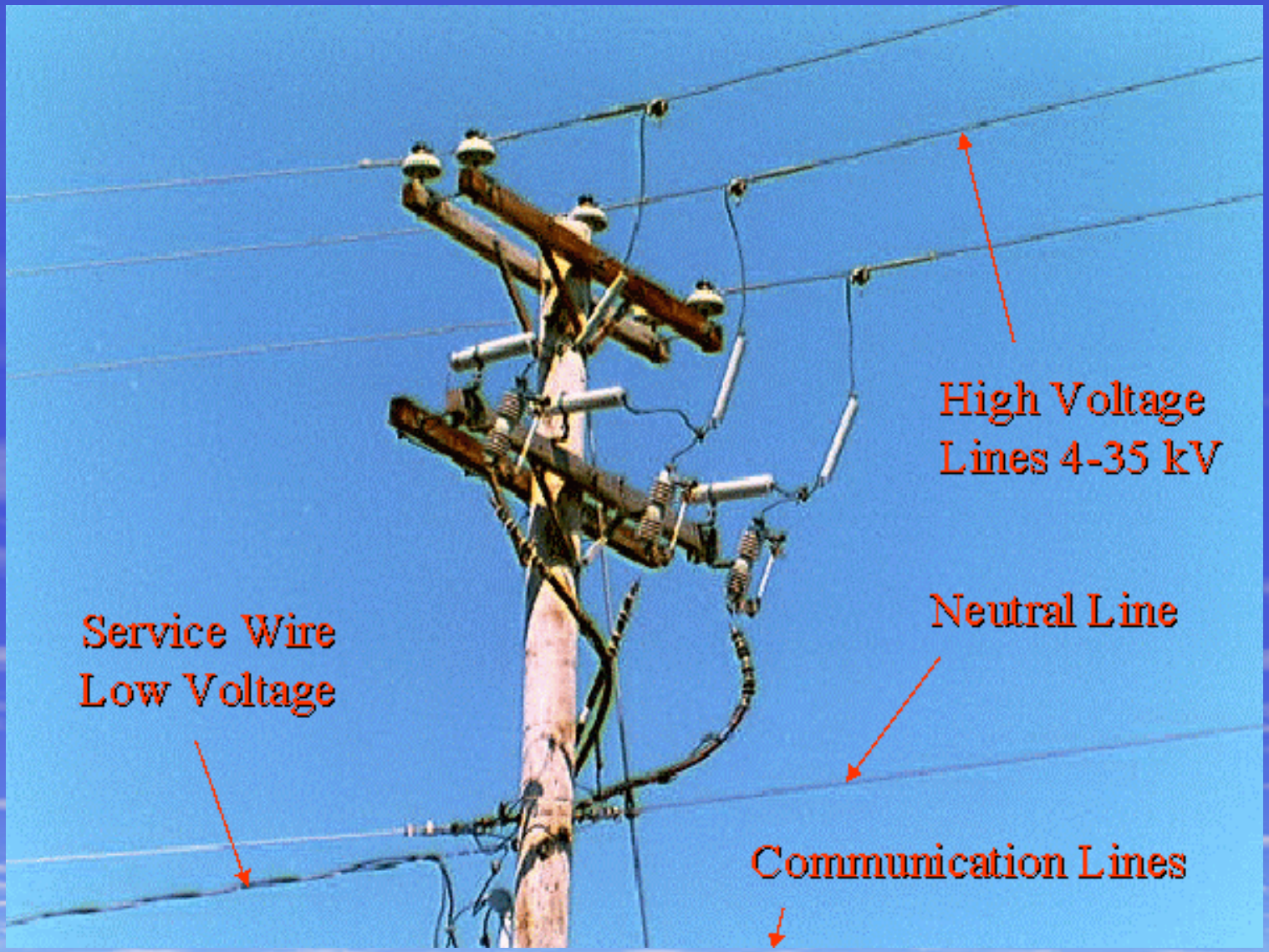
Electrical & Fire Safety

One Man!

One Lock!

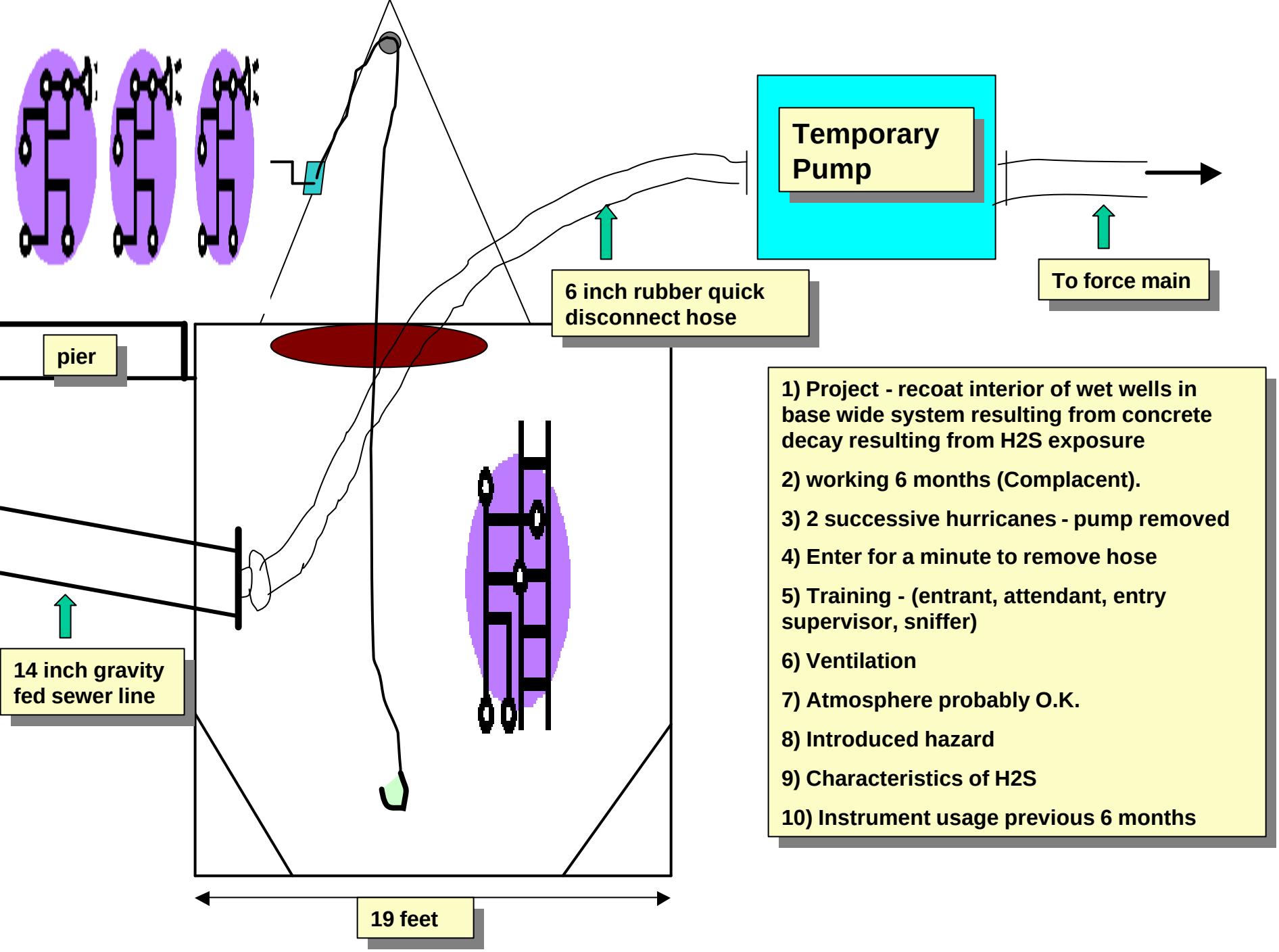
One Key!

Electrical & Fire Safety



Confined Spaces

Limited access
Not intended for continuous human occupancy
potential for hazardous atmosphere



1) Project - recoat interior of wet wells in base wide system resulting from concrete decay resulting from H2S exposure

2) working 6 months (Complacent).

3) 2 successive hurricanes - pump removed

4) Enter for a minute to remove hose

5) Training - (entrant, attendant, entry supervisor, sniffer)

6) Ventilation

7) Atmosphere probably O.K.

8) Introduced hazard

9) Characteristics of H2S

10) Instrument usage previous 6 months

Other Hazards

29 CFR 1910.269
Protection From Drowning

- (w)(5) - Whenever an employee may be pulled or pushed or may fall into water where the danger of drowning exists, the employee shall be provided and shall use U.S. Coast guard approved personal flotation devices.
- (ii) - . . . shall be inspected for rot, mildew, water saturation or any other condition. . .

Other Hazards

Other Hazards

Before you go in:

*** Survey the area**

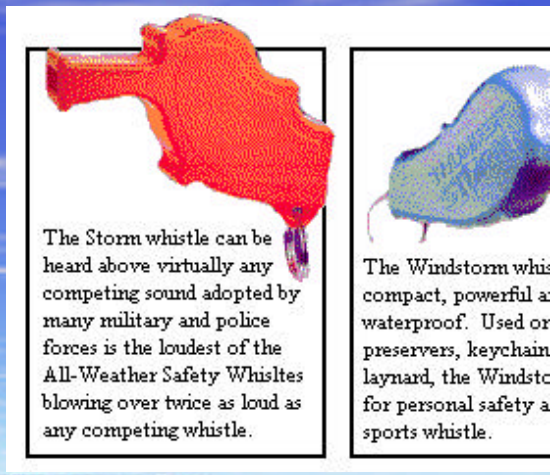
*** Never go alone**

*** Plan your entry and exit**

*** Communications!!!!!!!!**

Radio, Cell phone, Horn, Whistle

When being heard is a matter of life and death



Identify Hazards

Make sure there is clean water to drink

Identify Hazards

Identify Hazards

OSHA Regulations
U.S. Army Corp of Engineers Regulations
All are Minimal Standards

Identify Hazards

Plan for the hazards

Insure that you have the PPE needed

Did you remember your First Aid Kit?

Identify Hazards

* Traffic
* Power Lines
* Wet Roads
* Hurricane Debris

Identify Hazards

Identify Hazards

The BORDERLINE™

By Gabe Martin

"And to help us better simulate a real emergency, we've hired a special team of disaster experts."

Identify Hazards

WHAT IS A HAZARD

- CAUGHT IN OR BETWEEN
- CONTACT WITH
- STRUCK BY
- FALL FROM OR ONTO
- SLIP OR TRIP
- WHAT IF?

Identify Hazards

- Definition of Hazardous Materials :
- Anything that can jump out of it’s container and hurt you!!!!!!
- Definition of a Hazard:
- Anything that can jump out and hurt you or jump out and pull you into it and hurt you!!!

Identify Hazards

HOW TO SAFETY SCAN

- SCAN BY LOOKING AROUND
- IDENTIFY POTENTIAL HAZARDS
- PREDICT WHAT COULD HAPPEN
- DECIDE IF IT IS A HAZARD
- EXECUTE NEEDED ACTION

Identify Hazards

Stay Alert and watch where you are going!

READY MATERIALS:

Flashlight
Insect Repellent
Cell Phone
First Aid Kit
Water
Battery Operated Radio
Emergency food
Change of clothing
Gloves – Latex/work

Map of Area
Change of Clothing
Plastic Sheeting

Medication
Cash/Credit Card
Copy of Passport

Identify Hazards

Stay Alert and wear your PPE!